

## WHAT IS CLAIMED IS:

1. A method for transmitting a data word (DW) which contains a sequence of individual data (0,1) in sequential data positions (#1...#31), in the case of which
  - a) a code word supply (CV) is made available,
    - the number of individual codes words (C1...C31) of the supply corresponding at least to the number of data positions (#1 ...#31) of the data word (DW); and
    - the cross-correlation function of each code word (C2...C31) with a specific reference (C1) having in each case a distinct, detectable extreme value, whose position is characteristic of the individual code word (C2);
  - b) an individual code word (C1) is assigned to each data position (#1) of the data word (DW);
  - c) the assigned code word (C5) is combined with the particular datum (0) of the data position (#5), forming a data position-specific combination result (VE5);
  - d) the data position-specific combination results (VE1...VE31) are summed, forming a sum word (SW);
  - e) the sum word (SW) is transmitted to a receiver (EMP);
  - f) the received sum word (SW) is cross-correlated with a reference (R), this reference (R), when cross-correlated with each code word (C1...C31), having in each case a distinct, detectable extreme value, its position being characteristic of the individual code word (C2);
  - g) from the position and magnitude of the values of the thus formed correlation function (KKF), the particular data position-specific data (0,1) of the data word (DW) are reconstructed in that, following the fixed assignment, a corresponding datum (0,1) is assigned to each value (-6;26).
2. The method as recited in claim 1,  
the code words being formed by cyclical shifting of an m-sequence, a Barker code, a Gordon Mills Welch (GMW) sequence or a Gold code.
3. The method as recited in claim 1,  
the code words being formed by cyclical shifting of a CCK (complementary code keying) code.

4. The method as recited in claim 1, 2 or 3,  
unipolar dual values (0,1) being permitted for the data word (DW).
5. The method as recited in claim 1, 2 or 3,  
bipolar dual values (-1,1) being permitted for the data word (DW).
6. The method as recited in claim 1, 2 or 3,  
ternary or higher base number systems being permitted for the data word.
7. The method as recited in one of the preceding claims,  
bipolar sequences being used as code words.
8. A method for transmitting a data word (DW) which contains a sequence of individual data (0,1) in sequential data positions (#1...#31), in the case of which
  - a) a code word supply (CV) is made available;
    - the number of individual codes words of the supply corresponding at least to the number of data positions of the data word (DW); and
  - as code words (C1-1...C1-31; C2-1...C2-31), at least two sets (code 01, code 02) of sufficiently orthogonal sequences being used whose orthogonality effects that
    - the cross-correlation function of code words (C1-1...C1-31) of the first set (code 01) with a specific first set reference has a distinct, detectable extreme value; and the cross-correlation function of code words (C2-1...C2-31) of the second set (code 02) with a specific second set reference has a distinct, detectable extreme value, its position being characteristic in each case of the individual code word of the particular code word set;
    - while the cross-correlation function of the code words (C1-1...C1-31) of the first set (code 01) with the second set reference (C2-1) of the second set (code 02) and the cross-correlation function of code words (C2-1...C2-31) of the second set (code 02) with the first set reference (C1-1) do not have any distinct, detectable extreme value;
  - b) an individual code word is assigned to each data position of the data word;
  - c) the assigned code word is combined with the particular datum (0,1) of the data

position, forming a data-position specific combination result;

d) the data position-specific combination results are summed, forming a sum word (SW);

e) the sum word (SW) is transmitted to a receiver;

f) the received sum word (SW) is cross-correlated in each case with a first and a second set receiving reference (R1, R2), the cross-correlation function of code words (C1-1...C1-31) of the first set (code 01) with the first set receiving reference (R1) having a distinct, detectable extreme value; and the cross-correlation function of code words (C2-1...C2-31) of the second set (code 02) with the second set receiving reference (R2) having a distinct, detectable extreme value, its position being characteristic in each case of the individual code word of the particular code word set; and,

g) from the position and magnitude of the values of the thus formed correlation functions, the particular data position-specific data of the data word (DW) being reconstructed in that, following the fixed assignment, a corresponding datum is assigned to each value.

9. The method as recited in one of the preceding claims,  
the sum word (SW) being modulated for transmitting M-PSK (multiphase shift keying) and, in the process, an M-PSK modulation stage being used that is of a higher level than would be necessary based on the number of possible values that the sum word is able to assume.
10. The method as recited in one of the preceding claims,  
the sum words (SW) being provided with a cyclic extension (ZE) that is dimensioned in such a way that, in spite of transmission-induced sum word interferences within the correlation window (KF), only sum word components occur which originate from one single, original sum word.